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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,909	04/05/2004	Marcus Dill	13906-196001 / 2004P00240	2650
32864 7590 05/31/2007 FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER HARPER, LEON JONATHAN	
			ART UNIT 2166	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/816,909	<b>Applicant(s)</b> DILL ET AL.	
	<b>Examiner</b> Leon J. Harper	<b>Art Unit</b> 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-14,17-28 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-14,17-28 and 31-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/5/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed 3/13/2007 has been entered. Claims 1,4-7,10-14, 17, 18, 20-24 and 31-34 have been amended. Claims 2,15,16,29 and 30 have been cancelled. No claims have been added. Accordingly, claims 1,3-14,17-28 and 31-34 are currently pending in this office action.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1,3-14,17-28 and 31-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 20020144174 (hereinafter Nw) in view of US 20040164961 (hereinafter Bal).

As for claim 1 Nw discloses: a process list display configured to; display identifications of data analysis processes (See paragraph 0051), and receive user input selecting an entry of an identification of a data analysis process; and a data analysis display configured to : display representations of sub-processes-included in the data analysis process identified by the selected entry (See paragraph 0020), the displayed representations of sub-process including; a representation of data mining sub-process for creating a data attribute by performing an analytical process on data from an analytical processing data source,

, wherein the data analysis display is operable to display: a data mining sub-process for creating a data attribute by performing an analytical process on data from

(See paragraph 0079). While Nw does not substantially differ from the claimed invention, the disclosure of storing data attributes, and a representation of at least one of (1) an extractions sub-process for extracting data from a first transactional data source, (2) a transformation sub-process for transforming the extracted data from a data format used by the first transactional data source to a data a format used for analytical processing , and (3) a loading sub-process for loading data into the analytical processing data source and a representation of a deployment sub-process for storing the created data attribute in one of the first transactional data source, a second transactional data source other than the first transactional data source, or a second analytical data source used for analytical processing and and display connections between the displayed sub-processes, the connections indicating a sequence with which the displayed sub-processes are performed when performing the data analysis process is not necessarily explicit. Bal however, does disclose storing data attributes (See column 5 lines 40-44), and a representation of at least one of (1) an extractions sub-process for extracting data from a first transactional data source, (2) a transformation sub-process for transforming the extracted data from a data format used by the first transactional data source to a data a format used for analytical processing , and (3) a loading sub-process for loading data into the analytical processing data source and a representation of a deployment sub-process for storing the created data attribute in one of the first transactional data source, a second transactional data source other than the first transactional data source, or a second analytical data source used for analytical processing and and display connections between the displayed sub-

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processes, the connections indicating a sequence with which the displayed sub-processes are performed when performing the data analysis process (See figures 10a-10c). It would have been obvious to an artisan of ordinary skill in the pertinent art at the time the invention was made to have incorporated the teaching of Bal into the system of Nw. The modification would have been obvious because the two references are concerned with the solution to the problem of defining and performing data analysis processes, therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan, would have been motivated to combine the cited references since Bal's teaching would enable user of NW to view the continuous interaction of the sub-processes..

As for claim 2, the rejection of claim 1 is incorporated, and further Nw discloses: wherein the deployment sub-process stores the created data attribute in one of the data source, a transactional data store other than the data source, or a second analytical data store used for analytical processing (See paragraph 0050).

As for claim 3, the rejection of claim 1 is incorporated, and further Nw discloses: wherein each type of the sub-processes displayed in the data analysis process display is represented by a different shape than shapes representing other types of sub-

processes displayed in the analysis sub-process display (See paragraph 0056, paragraph 0047).

As for claim 4, the rejection of claim 1 is incorporated, and further Nw discloses: wherein the graphical user interface further comprises controls configured to add types of sub-processes to the data analysis process displayed in the data analysis display (See paragraph 0056).

As for claim 5, the rejection of claim 4 is incorporated, and further Nw discloses: wherein the controls comprise one or more of a control for configured to add an extraction sub-process, a control for configured to add a load sub-process, a control for adding an analysis sub-process, and a control configured to add a deployment sub-process (See paragraph 0056).

As for claim 6, the rejection of claim 1 is incorporated and further Nw discloses: wherein the graphical user interface further comprises a control for configured to display information about status of the data analysis process (See paragraph 0067).

As for claim 7 discloses: a sub-processes display configured to: receive user input indicating an entry of an identification and receiving an entry identifying a computer program to be associated with each of the identified sub-processes such that

the execution of the computer program causes the identified sub-process to be performed(See paragraph 0079).;

While Nw does not differ substantially from the claimed invention the disclosure of at least one of (1) an extraction sub-process for extracting data from a data source (2) a transformation sub-process for transforming the extracted data from a data format used by the data source to a data format used for analytical processing, , (3) a loading sub-process for loading data into a data source that is used for analytical processing, (4) a data mining sub-process for creating a data attribute by performing an analytical process on data from the analytical processing data source, and (5) an deployment sub-process for storing a data attribute created in another sub-process, and a common data display configured to receive an entry of selected meta-data elements to be used in the data analysis process wherein each meta-data element is associated with a corresponding data element in the data source and with a corresponding data element in the analytical processing data source, is not necessarily explicit. Bal however does discloses at least one of (1) an extraction sub-process for extracting data from a data source (2) a transformation sub-process for transforming the extracted data from a data format used by the data source to a data format used for analytical processing, (3) a loading sub-process for loading data into a data source that is used for analytical processing, (4) a data mining sub-process for creating a data attribute by performing an analytical process on data from the analytical processing data source, and (5) an deployment sub-process for storing a data attribute created in another sub-process (See paragraph 0028), and a common data display configured to receive an entry of



selected meta-data elements to be used in the data analysis process wherein each meta-data element is associated with a corresponding data element in the data source and with a corresponding data element in the analytical processing data source (See paragraph 002 note: other types on information collected).

As for claim 8, the rejection of claim 7 is incorporated, and further Nw discloses: wherein: the data source is a transactional data source, and the deployment sub-process stores the created data attribute in the transactional data source (See paragraph 0050)..

As for claim 9, the rejection of claim 8 is incorporated, and further Nw discloses: wherein the deployment sub-process stores the created data attribute in one of the data source, a second transactional data store other than the transactional data source, or a second analytical data store other than the analytical data used for the data mining sub-process (See paragraph 0053).

As for claim 10, the rejection of claim 7 is incorporated, and further Nw discloses: wherein graphical user interface is configured to receive user input defining how a particular error is to be processed during the data analysis process (See paragraph 0067).

As for claim 11, the rejection of claim 7 is incorporated, and further Nw discloses: wherein the graphical user interface is configured to receive user input identifying a computing device or a component of a computing device to be used during the execution of one of the identified sub-processes (See paragraph 0056).

As for claim 12, the rejection of claim 7 is incorporated, and further Nw discloses: wherein the graphical user interface is configured to receive user input identifying an order in which each of the identified sub-processes are to be performed when performing the data analysis process (See paragraph 0053).

As for claim 13, the rejection of claim 7 is incorporated, and further Nw discloses: wherein the graphical user interface is configured to receive user input identifying when the data analysis process is to be initiated (See paragraph 0052).

Claim 14 is method claims comprising substantially the same limitations as claim 7 and is thus rejected for the same reasons as claim 7.

As for claim 17, the rejection of claim 14 is incorporated, and further Nw discloses: wherein one of the sub-process inputs comprises a sub-process user input identifying a computer program that causes the identified sub-process to be performed (See paragraph 0067).

As for claim 18, the rejection of claim 14 is incorporated, and further Bal discloses: receiving user inputs of meta-data elements to be used in the data analysis process wherein each meta-data element is associated with (See paragraph 0028) 1) a corresponding data element in the first transactional data source, 2) a corresponding data element in the analytical processing data source, or 3) both a corresponding data element in one of the first and second transactional data sources and a corresponding data element in the analytical processing data source.

As for claim 19, the rejection of claim 14 is incorporated, and further Nw discloses: wherein each of the multiple sub-processes use a common message format (See paragraph 0068).

As for claim 20, the rejection of claim 14 is incorporated, and further Nw discloses receiving user input defining how a particular error is to be processed during the data analysis process (See paragraph 0067).

As for claim 21, the rejection of claim 14 is incorporated, and further Nw discloses: receiving user input identifying a computing device or a component of a computing device to be used during the execution of one of the multiple sub-processes (See paragraph 0056).

As for claim 22, the rejection of claim 14 is incorporated, and further Nw discloses: receiving user input identifying an order in which the multiple sub-processes are to be performed when performing the data analysis process (See paragraph 0053).

As for claim 23, the rejection of claim 14 is incorporated, and further Nw discloses: comprising receiving user input identifying when the data analysis process is to be initiated (See paragraph 0052).

As for claim 24, the rejection of claim 14 is incorporated, and further Nw discloses: wherein a deployment sub-process comprises a first deployment sub-process for storing a data attribute created in another of the identified sub-processes in a first data store and the multiple identified sub-process further include a second deployment sub-process for storing the data attribute in a second data store (See paragraph 0064).

As for claim 25, the rejection of claim 24 is incorporated, and further Nw discloses: wherein the first data store is the same as the second data store (See paragraph 70).

As for claim 26, the rejection of claim 24 is incorporated, and further Nw discloses: wherein the first data store is different from the second data store (See paragraph 0070 note: the data stores or databases do not have to be the same).

As for claim 27, the rejection of claim 26 is incorporated, and further Nw discloses: wherein the first data store comprises a transactional data store and the second data store comprises an analytical data store (See paragraph 0067).

Claims 28-32 are computer program product claims corresponding to the computer implemented method of claims 14-18 respectively and are thus rejected for the same reasons as claims 14-18.

As for claim 33, the rejection of claim 28 is incorporated, and further Nw discloses: wherein the at least one of the identified sub-processes is a deployment sub-process comprises a first deployment sub-process for storing a data attribute created in another of the identified sub-processes in a first data store and a second deployment sub-process for storing the data attribute in a second data store (See paragraph 0067).

Claim 34 is a system claim corresponding to the method of claim 14 and is thus rejected for the same reasons as claim 14.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon J. Harper whose telephone number is 571-272-0759. The examiner can normally be reached on 7:30AM - 4:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LJH  
Leon J. Harper  
May 25, 2007

  
Mohammad Ali,  
Primary Examiner